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# Effects of Recent National Legislation on Ownership of Timberland Resources in Southeast Alaska

Willem W. S. van Hees

## Abstract

Ground plots examined between 1965 and 1975 were recoded to reflect current ownership of forest resources in southeast Alaska. Of 6.3 million acres of timberland in southeast Alaska, 5.6 million acres are federally "owned," 200,000 acres are owned by the State, 409,000 acres are owned by private corporations, and the remaining 59,000 acres are owned by various "other" owners. Figures for State and private corporation owners reflect increases, the federally "owned" amount represents a decrease, and the "other" owner figure shows essentially no change.

## Introduction

The status of ownership of land and other resources in Alaska has changed significantly since the mid-1950's as a result of three national acts (the Alaska Statehood Act of 1958, Public Law 85-508; the Alaska Native Claims Settlement Act of 1971 (ANCSA), Public Law 92-203; and the Alaska National Interest Lands Conservation Act (ANILCA), Public Law 96-487). Although not all changes in land owners as a result of these acts are complete, the majority of those in southeast Alaska have been effected.

This study is part of a statewide effort by FIA (Forest Inventory and Analysis) in Alaska; it provides results of an early attempt to assess the magnitude of changes in ownership of the forest resources in southeast Alaska (excluding Annette Island) since the early 1970's.

Significant areas of forest land were reclassified as National Forest Wilderness Areas; these lands are still "owned" (managed) by the Federal Government. Also of great interest, from a market point of view, is the quantity of forest resources shifted from public domain to private holdings; private corporations now own some high quality timberland.

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WILLEM W. S. VAN HEES is a research forester for  
Alaska Forest Inventory and Analysis, Forestry Sciences  
Laboratory, 201 E. Ninth Avenue, Anchorage, Alaska  
99501.

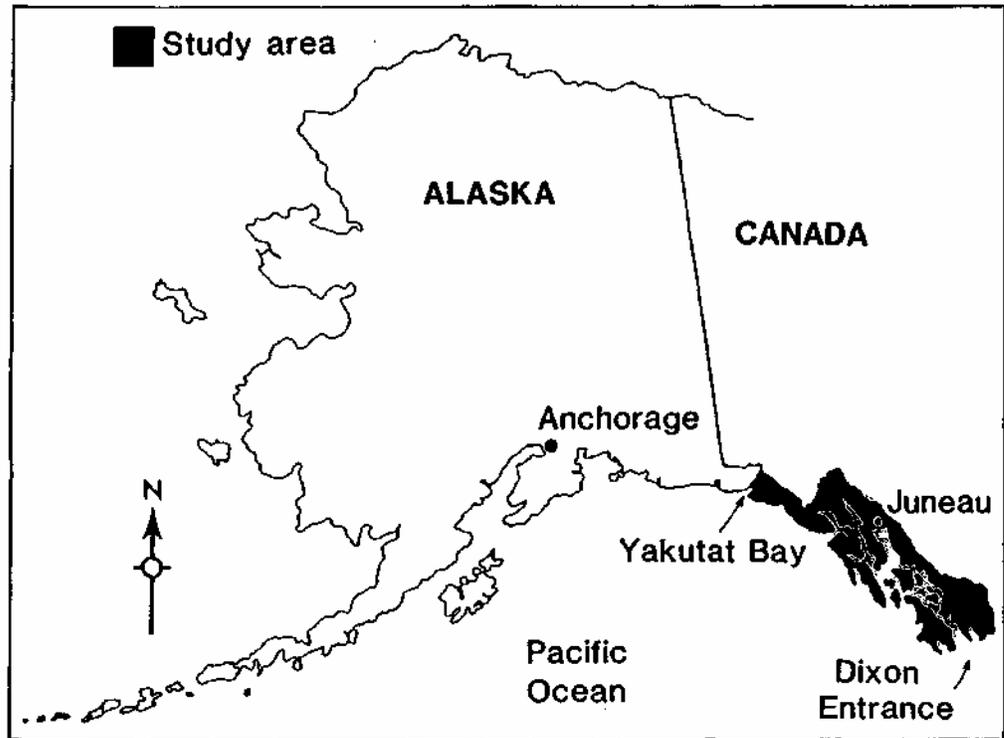


Figure 1—Southeast Alaska forest resources inventory area.

**Study Area**

The study area is the panhandle of southeast Alaska (fig. 1)-from Yakutat Bay in the northwest to Dixon Entrance in the south. The eastern boundary is the United States-Canada border; the western boundary is the Pacific Ocean.

**Study Methods**

The estimates of timber resource areas and volumes by owner were derived from recorded, recompiled inventory data collected from 1965 to 1975. Ground plots were recorded to reflect current ownership of the lands the plots were on.

Current ownership was established by locating the plot on up-to-date (1985) land status maps provided by the Lands and Minerals Office of Region 10 (Alaska Region), USDA Forest Service Headquarters, Juneau, Alaska. The owners listed on these maps had title to the land as of March 1985. The area and volume statistics are from the most recent timber inventories conducted by FIA in southeast Alaska (1965-75).

Owner groups (see "Terminology" for definitions) as used in this study are:

- Private corporations
- Alaska State
- National Forest:
  - Unreserved
  - Reserved
- Other owners

## Results and Discussion

The timber inventories conducted from 1965 to 1975 were designed to estimate timberland area (forest land capable of producing more than 20 cubic feet of wood per acre per year) and its timber volume. Results indicate about 6.32 million acres of timberland with nearly 35.74 billion cubic feet of growing-stock timber. Private corporations own 6.5 percent (409,000 acres) of the total area and 7.0 percent (2.51 billion cubic feet) of the total volume.

Sixty-six percent of the timberland now owned by private corporations is forested with western hemlock (table 1).<sup>1</sup> This land, 269,000 acres, comprises 7.8 percent of all western hemlock forest type in southeast Alaska.

Volumes per acre of western hemlock on private corporation lands are the highest of any forest type-owner category in southeast Alaska. All volumes presented in this report are net volumes. Table 1 lists average cubic-foot volumes per acre; table 2, board-foot (International 1/4-inch rule) volumes; and table 3, board-foot (Scribner) volumes. Overall, volumes per acre are highest on private corporation timberlands.

Of forest types other than western hemlock, private corporations own 12.9 percent of all western redcedar, 3.4 percent of all hemlock-spruce, 4.9 percent of all Sitka spruce, and 4.9 percent of the Alaska-cedar forest types.

Private corporation timberlands have a stand-size class distribution representative of most of the timberland in southeast Alaska—old-growth sawtimber stands; little of the area is in seedling-sapling stands and poletimber stands (table 4). The seedling-sapling stands contain some growing-stock volume, which indicates that these stands are at or near the end of the seedling-sapling stage. These seedling-sapling stands will likely soon become poletimber stands.

Although private corporations own some of the more productive timberland in southeast Alaska and are in an excellent position to assume an important role in forestry and natural resource management, the major land and timber resource manager in southeast Alaska is the USDA Forest Service.

Timberlands (as a subset of all lands) managed by the USDA Forest Service fall into two broad categories, unreserved and reserved. Unreserved timberlands are potentially available for timber utilization; reserved timberlands are lands (such as Wilderness Areas) withdrawn from timber use through administrative statute.

Currently, and for the foreseeable future, the area of reserved timberland in southeast Alaska is estimated to be 1.54 million acres, 27 percent of the 5.65 million acres of timberland administered by the Forest Service and 24 percent of all timberland in southeast Alaska.

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<sup>1</sup> For scientific names, see \*Common and Scientific Names of Trees.\*

**Table 1—Area of timberland, net cubic volume, and net cubic volume per acre on timberland, by forest type and owner, southeast Alaska. 1985<sup>1</sup>**

FOREST TYPE AND UNIT	ALL OWNERS	NATIONAL FOREST		ALASKA STATE	PRIVATE CORPORATION	OTHER OWNERS
		UNRESERVED	RESERVED			
<b>PACIFIC SILVER FIR:</b>						
THOUSAND ACRES	7	--	7	--	--	--
THOUSAND FT <sup>3</sup>	39,070	--	39,070	--	--	--
FT <sup>3</sup> /ACRE	5,763	--	5,763	--	--	--
<b>HEMLOCK-SPRUCE:</b>						
THOUSAND ACRES	833	487	205	112	29	--
THOUSAND FT <sup>3</sup>	5,107,466	3,061,823	1,411,846	529,034	104,764	--
FT <sup>3</sup> /ACRE	6,135	6,283	6,895	4,729	3,661	--
<b>WESTERN REDCEDAR:</b>						
THOUSAND ACRES	414	299	61	--	54	--
THOUSAND FT <sup>3</sup>	1,675,792	1,262,283	238,610	--	174,900	--
FT <sup>3</sup> /ACRE	4,051	4,222	3,914	--	3,256	--
<b>SITKA SPRUCE:</b>						
THOUSAND ACRES	595	384	150	7	29	25
THOUSAND FT <sup>3</sup>	3,321,435	2,274,780	812,669	44,629	119,178	70,179
FT <sup>3</sup> /ACRE	5,586	5,919	5,410	6,599	4,129	2,860
<b>MOUNTAIN HEMLOCK:</b>						
THOUSAND ACRES	641	374	261	--	7	--
THOUSAND FT <sup>3</sup>	3,109,059	1,739,263	1,351,098	--	18,697	--
FT <sup>3</sup> /ACRE	4,847	4,650	5,184	--	2,766	--
<b>WESTERN HEMLOCK:</b>						
THOUSAND ACRES	3,347	2,277	723	64	269	14
THOUSAND FT <sup>3</sup>	20,519,324	13,062,083	4,958,237	371,717	2,027,510	99,778
FT <sup>3</sup> /ACRE	6,131	5,736	6,855	5,792	7,551	7,368
<b>ALASKA-CEEDAR:</b>						
THOUSAND ACRES	380	257	104	--	18	--
THOUSAND FT <sup>3</sup>	1,741,623	1,214,745	460,059	--	66,819	--
FT <sup>3</sup> /ACRE	4,587	4,723	4,421	--	3,614	--
<b>RED ALDER:</b>						
THOUSAND ACRES	16	12	--	--	4	--
THOUSAND FT <sup>3</sup>	35,868	35,868	--	--	0	--
FT <sup>3</sup> /ACRE	2,257	3,080	--	--	0	--
<b>BLACK COTTONWOOD:</b>						
THOUSAND ACRES	83	22	25	15	--	21
THOUSAND FT <sup>3</sup>	183,016	46,893	87,173	36,064	--	12,885
FT <sup>3</sup> /ACRE	2,200	2,126	3,438	2,357	--	621
<b>PAPER BIRCH:</b>						
THOUSAND ACRES	2	--	--	2	--	--
THOUSAND FT <sup>3</sup>	3,476	--	--	3,476	--	--
FT <sup>3</sup> /ACRE	1,931	--	--	1,931	--	--
<b>ALL TYPES:</b>						
THOUSAND ACRES	6,317	4,113	1,536	200	409	59
THOUSAND FT <sup>3</sup>	35,736,129	22,697,737	9,358,761	984,921	2,511,868	182,843
FT <sup>3</sup> /ACRE	5,672	5,519	6,093	4,927	6,138	3,108

-- indicates no data were collected.

Totals may be off because of rounding.

1/ Areas and volumes for Annette Island are not included.

**Table 2—Area of timberland, net board-foot (International 1/4-inch rule) volume and net board-foot volume per acre on timberland, by forest type and owner, southeast Alaska 1985<sup>1</sup>**

FOREST TYPE AND UNIT <sup>2/</sup>	NATIONAL FOREST					OTHER OWNERS
	ALL OWNERS	UNRESERVED	RESERVED	ALASKA STATE	PRIVATE CORPORATION	
<b>PACIFIC SILVER FIR:</b>						
THOUSAND ACRES	7	--	7	--	--	--
THOUSAND BFI	150,341	--	150,341	--	--	--
BFI/ACRE	22,174	--	22,174	--	--	--
<b>HEMLOCK-SPRUCE:</b>						
THOUSAND ACRES	833	487	205	112	29	--
THOUSAND BFI	25,284,698	15,210,857	6,733,331	2,844,819	495,691	--
BFI/ACRE	30,371	31,216	32,883	25,430	17,324	--
<b>WESTERN REDCEDAR:</b>						
THOUSAND ACRES	414	299	61	--	54	--
THOUSAND BFI	6,321,085	4,802,463	880,425	--	638,199	--
BFI/ACRE	15,281	16,064	14,441	--	11,881	--
<b>SITKA SPRUCE:</b>						
THOUSAND ACRES	595	384	150	7	29	25
THOUSAND BFI	16,935,518	11,931,444	3,822,982	243,005	627,392	310,695
BFI/ACRE	28,481	31,051	25,452	35,936	21,738	12,664
<b>MOUNTAIN HEMLOCK:</b>						
THOUSAND ACRES	641	374	261	--	7	--
THOUSAND BFI	13,014,414	7,276,086	5,670,598	--	67,730	--
BFI/ACRE	20,289	19,451	21,758	--	10,016	--
<b>WESTERN HEMLOCK:</b>						
THOUSAND ACRES	3,347	2,277	723	64	269	14
THOUSAND BFI	94,120,961	60,029,204	21,983,993	1,726,656	9,901,378	479,734
BFI/ACRE	28,122	26,360	30,392	26,904	36,875	35,426
<b>ALASKA-CEDAR:</b>						
THOUSAND ACRES	380	257	104	--	18	--
THOUSAND BFI	6,376,478	4,592,687	1,577,636	--	206,156	--
BFI/ACRE	16,793	17,858	15,162	--	11,151	--
<b>RED ALDER:</b>						
THOUSAND ACRES	16	12	--	--	4	--
THOUSAND BFI	157,249	157,249	--	--	0	--
BFI/ACRE	9,890	13,502	--	--	0	--
<b>BLACK COTTONWOOD:</b>						
THOUSAND ACRES	83	22	25	15	--	21
THOUSAND BFI	833,553	184,489	437,869	178,260	--	32,933
BFI/ACRE	9,983	8,366	17,274	11,650	--	1,586
<b>PAPER BIRCH:</b>						
THOUSAND ACRES	2	--	--	2	--	--
THOUSAND BFI	13,826	--	--	13,826	--	--
BFI/ACRE	7,681	--	--	7,681	--	--
<b>ALL TYPES:</b>						
THOUSAND ACRES	6,317	4,113	1,536	200	409	59
THOUSAND BFI	163,208,118	104,184,471	41,257,174	5,006,566	11,936,546	823,363
BFI/ACRE	25,837	25,332	26,859	25,044	29,170	13,996

-- indicates no data were collected.

Totals may be off because of rounding.

1/ Areas and volume for Annette Island are not included.

2/ BFI = board feet, International 1/4 -inch rule.

Table 3—Area of timberland, net board-foot (Scribner) volume and net board-foot volume per acre on timberland, by forest type and owner, southeast Alaska, 1985<sup>1</sup>

FOREST TYPE AND UNIT <sup>2/</sup>	ALL OWNERS	NATIONAL FOREST		ALASKA STATE	PRIVATE CORPORATION	OTHER OWNERS
		UNRESERVED	RESERVED			
<b>PACIFIC SILVER FIR:</b>						
THOUSAND ACRES	7	--	7	--	--	--
THOUSAND BFS	135,979	--	135,979	--	--	--
BFS/ACRE	20,059	--	20,059	--	--	--
<b>HEMLOCK-SPRUCE:</b>						
THOUSAND ACRES	833	487	205	112	29	--
THOUSAND BFS	23,333,833	14,059,768	6,195,381	2,621,630	457,053	--
BFS/ACRE	28,028	28,854	30,256	23,434	15,974	--
<b>WESTERN REDCEDAR:</b>						
THOUSAND ACRES	414	299	61	--	54	--
THOUSAND BFS	5,636,148	4,285,347	786,841	--	563,960	--
BFS/ACRE	13,626	14,334	12,906	--	10,499	--
<b>SITKA SPRUCE:</b>						
THOUSAND ACRES	595	384	150	7	29	25
THOUSAND BFS	15,559,931	10,989,887	3,481,215	223,916	585,838	279,075
BFS/ACRE	26,168	28,600	23,176	33,114	20,299	11,375
<b>MOUNTAIN HEMLOCK:</b>						
THOUSAND ACRES	641	374	261	--	7	--
THOUSAND BFS	11,856,673	6,612,910	5,180,644	--	63,120	--
BFS/ACRE	20,289	19,451	21,758	--	9,334	--
<b>WESTERN HEMLOCK:</b>						
THOUSAND ACRES	3,347	2,277	723	64	269	14
THOUSAND BFS	85,914,703	54,700,712	20,109,400	1,574,369	9,092,958	437,807
BFS/ACRE	25,670	24,020	27,801	24,531	33,864	32,330
<b>ALASKA-CEDAR:</b>						
THOUSAND ACRES	380	257	104	--	18	--
THOUSAND BFS	5,620,712	4,056,076	1,386,831	--	177,805	--
BFS/ACRE	14,802	15,772	13,328	--	9,618	--
<b>RED ALDER:</b>						
THOUSAND ACRES	16	12	--	--	4	--
THOUSAND BFS	145,039	145,039	--	--	0	--
BFS/ACRE	9,128	12,454	--	--	0	--
<b>BLACK COTTONWOOD:</b>						
THOUSAND ACRES	83	22	25	15	--	21
THOUSAND BFS	739,268	164,325	390,831	155,879	--	28,233
BFS/ACRE	8,889	7,451	15,418	10,188	--	1,360
<b>PAPER BIRCH:</b>						
THOUSAND ACRES	2	--	--	2	--	--
THOUSAND BFS	12,581	--	--	12,581	--	--
BFS/ACRE	6,989	--	--	6,989	--	--
<b>ALL TYPES:</b>						
THOUSAND ACRES	6,317	4,113	1,536	200	409	59
THOUSAND BFS	148,954,851	95,013,518	37,667,120	4,588,376	10,940,734	745,115
BFS/ACRE	23,581	23,102	24,522	22,952	26,737	12,664

-- indicates no data were collected.

Totals may be off because of rounding.

<sup>1/</sup> Areas and volumes for Annette Island are not included.

<sup>2/</sup> BFS = board feet, Scribner rule.

**Table 4—Net volume of growing stock (cubic feet) and sawtimber (board feet, International 1/4-inch rule and Scribner rule) on timberland, by owner and stand-size class, southeast Alaska, 1985<sup>1</sup>**

OWNER <sup>2/</sup>	SEEDLING- SAPLING	POLETIMBER	YOUNG-GROWTH SAWTIMBER	OLD-GROWTH SAWTIMBER	ALL CLASSES
<b>NATIONAL FOREST:</b>					
UNRESERVED--					
GROWING STOCK					
THOUSAND CUBIC FEET	55,996	75,188	966,856	21,599,697	22,697,737
SAWTIMBER					
THOUSAND BFI	216,099	144,299	5,008,319	98,815,760	104,184,471
THOUSAND BFS	197,948	126,801	4,530,920	90,157,851	95,013,518
RESERVED--					
GROWING STOCK					
THOUSAND CUBIC FEET	3,730	29,760	449,889	8,875,382	9,358,761
SAWTIMBER					
THOUSAND BFI	13,013	19,731	2,034,274	39,190,158	41,257,174
THOUSAND BFS	11,115	15,966	1,819,760	35,820,279	37,667,120
<b>ALASKA STATE:</b>					
GROWING STOCK--					
THOUSAND CUBIC FEET	1,441	8,761	207,259	767,460	984,921
SAWTIMBER--					
THOUSAND BFI	6,779	21,509	1,077,579	3,900,699	5,006,566
THOUSAND BFS	6,268	19,698	983,142	3,579,268	4,588,376
<b>PRIVATE CORPORATION:</b>					
GROWING STOCK--					
THOUSAND CUBIC FEET	29,805	--	65,743	2,416,320	2,511,868
SAWTIMBER--					
THOUSAND BFI	47,401	--	297,744	11,591,402	11,936,546
THOUSAND BFS	41,887	--	271,376	10,627,471	10,940,734
<b>OTHER OWNERS:</b>					
GROWING STOCK--					
THOUSAND CUBIC FEET	5,497	9,177	53,331	114,838	182,843
SAWTIMBER--					
THOUSAND BFI	3,151	11,386	237,528	571,298	823,363
THOUSAND BFS	2,600	9,437	210,494	522,584	745,115
<b>ALL OWNERS:</b>					
GROWING STOCK--					
THOUSAND CUBIC FEET	96,469	122,888	1,743,077	33,773,693	35,736,128
SAWTIMBER--					
THOUSAND BFI	286,443	196,927	8,655,445	154,069,297	163,208,111
THOUSAND BFS	259,819	171,904	7,815,693	140,707,433	148,954,851

-- indicates no data were collected.

Totals may be off because of rounding.

<sup>1/</sup> Volumes for Annette Island are not included.

<sup>2/</sup> BFI = board feet, International 1/4-inch rule; BFS = board feet, Scribner rule.

**Table 5—Ratio of board-foot Scribner volume (BFS) to board-foot International 1/4-inch volume (BFI), by owner and stand-size class, southeast Alaska, 1985<sup>1</sup>**

OWNER	SAWTIMBER				
	YOUNG-GROWTH	OLD-GROWTH	POLETIMBER	SEEDLING AND SAPLING	ALL CLASSES
BFS:BFI					
NATIONAL FOREST:					
UNRESERVED	0.905	0.912	0.878	0.916	0.912
RESERVED	.895	.914	.809	.854	.913
ALASKA STATE	.912	.918	.916	.925	.916
PRIVATE CORPORATION	.911	.917	--	.884	.917
OTHER OWNERS	.886	.915	.829	.825	.905
ALL OWNERS	.903	.913	.873	.907	.913

-- indicates no data were collected.

<sup>1/</sup> Annette Island is not included.

On the average, an acre of reserved National Forest timberland has more cubic-foot and board-foot volume than does an acre of unreserved National Forest timberland (tables 1-3). Also, the average per-acre volume on reserved timberland is higher than the average volume per acre for all timberland.

Caution must be observed in comparing figures presented here on National Forest resource quantities with those presented in the Tongass Land Management Plan (USDA Forest Service 1979). Although a discrepancy may appear between figures in the land management plan and those presented here, the difference is not statistically significant. The two sets of estimates are mutually supportive.

A measure other than per-acre volumes that points to the nature and quality of timberland acreage is the ratio of board-foot Scribner (BFS) volume to board-foot International 1/4-inch (BFI) volume. The Scribner log rule tends to underestimate volumes compared with the International 1/4-inch rule, and the underestimation is greater for small trees than for large trees. Low values for BFS:BFI indicate that the distribution of tree diameters on a given area is skewed toward smaller diameters than is the distribution on acres where values are higher.

Table 5 lists BFS:BFI by stand-size class for each owner. On National Forest lands, within the seedling-sapling, poletimber, and young-growth sawtimber size classes, the lowest value for BFS:BFI is on reserved National Forest timberlands; A tree diameter distribution that may be skewed toward smaller diameters (indicating a higher percentage of smaller, and therefore perhaps younger, trees) along with relatively high volumes per acre indicates that the reserved National Forest timberland acres have comparatively healthy forest growing on them.

## Conclusions

Estimating amounts of timberland that shifted from one owner to another since the mid-1950's by the use of the timber inventory data in this study is difficult because there is no prior, comparable, data base with which to compare.

The largest percentage change in ownership occurred in the private corporation category. In the mid-1950's, private corporations held title to little or no timberland; they currently own nearly 409,000 acres, an amount expected to increase somewhat as final land settlements are made.

Although much of the land transferred to private corporation owners came from public lands, the USDA Forest Service is still the major land steward in southeast Alaska, with responsibility for nearly 6 million acres of timberland.

Substantial timberland acreage has been placed in reserved categories to provide for wilderness uses, and a significant area of timberland is available for timber production. Private corporations, which own some of the most highly productive timberland in southeast Alaska, are in a position to assume an important role in forest and other natural resource management. The variety of timberland ownership and use categories in southeast Alaska provides opportunity for future generations to enjoy the benefits of natural resource multiple use.

## Terminology

**Forest Types**—A classification of forest land based on the tree species forming a plurality of stocking on the area currently occupied by tree cover. The following summarizes the forest types in this report:

**Alaska-cedar**—Forests in which Alaska-cedar constitutes the plurality of the stocking. Common associates are mountain hemlock or western hemlock, lodgepole pine, and western redcedar; an occasional associate is Sitka spruce.

**Black Cottonwood**—Forests in which cottonwood constitutes the plurality of the stocking. Common associates are red alder and Sitka spruce.

**Hemlock-spruce**—Forests in which 50 percent or more of the stand is western hemlock or mountain hemlock, and Sitka spruce constitutes 30-49 percent of the stocking. Common associates are Alaska-cedar and western redcedar; occasional associates are cottonwood, red alder, and lodgepole pine.

**Mountain Hemlock**—Forests in which mountain hemlock constitutes the plurality of the stocking. Common associates are western hemlock and Alaska-cedar.

**Pacific Silver Fir**—Forests in which Pacific silver fir constitutes the plurality of the stocking. Common associates are black cottonwood, Sitka spruce, mountain hemlock and western hemlock.

**Paper Birch**—Forests in which paper birch forms the plurality of the stocking. Common associates are red alder and cottonwood.

**Red Alder**—Forests in which red alder forms the plurality of the stocking. Common associates are cottonwood, Sitka spruce, and western hemlock; occasional associates are western redcedar and Alaska-cedar.

**Sitka Spruce**—Forests in which Sitka spruce forms the plurality of the stocking. Common associates are western hemlock and western redcedar; occasional associates are cottonwood, red alder, and Alaska-cedar.

**Western Hemlock**—Forests in which western hemlock constitutes the plurality of the stocking. Common associates are Sitka spruce, Alaska-cedar, western redcedar, and mountain hemlock; occasional associates are cottonwood, red alder, and lodgepole pine.

**Western Redcedar**—Forests in which western redcedar constitutes the plurality of the stocking. Common associates are Sitka spruce, western hemlock, and Alaska-cedar; occasional associates are cottonwood, red alder, and mountain hemlock.

**Growing-stock Volume**—Net volume, in cubic feet, of live sawtimber and poletimber growing-stock trees from stump to a minimum 4.0-inch top (of central stem) outside the bark. Net volume equals gross volume less deductions for rot and missing bole sections.

**International 1/4-inch Rule**—The standard board-foot log rule adopted nationally by the USDA Forest Service for presenting inventory volume statistics. It is based on a mathematical formula that gives the yield of a log in terms of its diameter at the small end and its length and allows for a 1/4-inch saw kerf during processing.

**Net Volume**—The gross volume of a tree less deductions for rot, sweep, or other defect affecting product use.

**Old-growth Stands**—Stands with at least 50 percent of the live-tree stocking per acre in old-growth trees.

**Old-growth Trees**—Trees that have reached or passed the age of physiological maturity—assumed to be 150 years for coastal Alaska.

**Owner Groups**—

**Private Corporations**—This category includes forest industry lands (lands owned by companies or individuals operating wood-using plants), miscellaneous private corporations, Alaska Native and Village Corporation lands, and Alaska Native townsite lands.

**Alaska State**—Lands owned by the State of Alaska.

## **National Forest—**

**Unreserved**—Federal lands that have been designated by Executive order or statute as National Forests or purchase units, and other lands under the administration of the Forest Service not withdrawn from timber utilization.

**Reserved**—Federal lands that have been designated by Executive order or statute as National Forests or purchase units, and other lands withdrawn from timber production, under the administration of the Forest Service, such as wilderness areas.

**Other Owners**—All lands not otherwise defined. This category includes lands owned by borough and municipal agencies and by other miscellaneous private owners such as farmers.

**Poletimber Stands**—Stands at least 16.7 percent stocked with growing-stock trees, with half or more of this stocking in poletimber and sawtimber trees, and with poletimber stocking exceeding sawtimber stocking.

**Sawtimber Stands**—Stands at least 16.7 percent stocked with growing-stock trees, with half or more of this stocking in sawtimber or poletimber trees and with sawtimber stocking at least equal to that of poletimber.

**Sawtimber Volume**—Net volume of sawtimber trees, measured in board feet.

**Scribner Rule**—A board-foot log rule originally developed through use of diagrams (drawn to scale) representing the small ends of logs of different diameters, on which were drawn the different pieces of lumber that might be produced.

**Seedling-sapling Stands**—Stands at least 16.7 percent stocked with growing-stock trees and with saplings and seedlings constituting more than half of this stocking.

**Stand-size Class**—A classification of forest land based on the predominant size of the timber—sawtimber, poletimber, or seedlings and saplings.

**Timberland**—Forest land producing or capable of producing more than 20 cubic feet per acre per year of wood under management. In old-growth stands of southeast Alaska, this is equated to stands that could produce 8,000 board feet (International 1/4-inch rule) per acre per year.

**Volume of Growing Stock**—Volume of sound wood in the bole of live growing-stock trees from stump to a minimum 4.0-inch top outside the bark or to where the central stem breaks into limbs.

**Volume of Sawtimber**—Net volume of the saw-log portion of live growing-stock sawtimber trees, expressed in board feet.

**Young-growth Stands**—Stands with at least 50 percent of the live-tree stocking per acre comprising young-growth trees.

**Young-growth Trees**—Trees that have not passed the age of physiological maturity, assumed to be 150 years for coastal Alaska.

## Common and Scientific Names of Trees

Common name	Scientific name <sup>2</sup>
<b>Softwoods:</b>	
Alaska-cedar	<i>Chamaecyparis nootkatensis</i> (D. Don) Spach
Fir, Pacific silver	<i>Abies amabilis</i> (Dougl.) Forbes
Hemlock, mountain	<i>Tsuga mertensiana</i> (Bong.) Carr.
Hemlock, western	<i>Tsuga heterophylla</i> (Raf.) Sarg.
Pine, lodgepole	<i>Pinus contorta</i> Dougl.
Redcedar, western	<i>Thuja plicata</i> Donn
Spruce, Sitka	<i>Picea sitchensis</i> (Bong.) Carr.
<b>Hardwoods:</b>	
Alder, red	<i>Alnus rubra</i> Bong.
Birch, paper	<i>Betula papyrifera</i> Marsh.
Cottonwood, black	<i>Populus trichocarpa</i> Torr. & Gray

## Metric Equivalents

1 inch = 2.54 centimeters
1 mile = 1.609 kilometers
1 acre = 0.4047 hectare
1 cubic foot = 0.0283 cubic meter
20 cubic feet per acre = 1.3994 cubic meters per hectare

## Literature Cited

- U.S. Department of Agriculture, Forest Service. 1979.** Tongass land management plan. Admin. Doc. 147. Washington, DC. [Amended 1985-86].
- Viereck, Leslie A.; Little, Elbert E., Jr. 1972.** Alaska trees and shrubs. Agric. Handb. 410. Washington, DC: U.S. Department of Agriculture. 265 p.

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<sup>2</sup> According to Viereck and Little (1972).

Pacific Northwest Research Station  
319 S.W. Pine St.  
P.O. Box 3890;  
Portland, Oregon 97208

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